Buckingham (C. E.)

INTRODUCTORY LECTURE

TO THE STUDENTS OF THE

MEDICAL SCHOOL OF HARVARD UNIVERSITY.

WEDNESDAY, NOV. 4, 1868.

By CHARLES E. BUCKINGHAM, M. D.,
PROFESSOR OF OBSTETRICS AND MEDICAL JURISPRUDENCE.

BOSTON:
PRESS OF A. A. KINGMAN,
MUSEUM OF THE BOSTON SOCIETY OF NATURAL HISTORY.
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BOSTON, Nov. 9, 1868.

DR. CHARLES E. BUCKINGHAM:—

DEAR SIR: At a recent meeting of the Class, it was voted that a committee be appointed to request a copy of your Introductory Lecture for publication. As that committee, we would inform you of, and respectfully desire your compliance to, their wishes.

Very truly yours,

CHARLES B. BRIGHAM,
HORATIO BRIDGE.

BOSTON, Nov. 10, 1868.

MESSRS. CHARLES B. BRIGHAM AND HORATIO BRIDGE:—

GENTLEMEN: I shall be most happy to accede to the wishes of yourselves and friends, as expressed in your note of to-day.

I am, very respectfully,

Yours,

CHARLES E. BUCKINGHAM.

ADDRESS.

GENTLEMEN: —

I welcome you in the name of the Faculty of the Medical Department of Harvard University. It seems but a few months ago that I was one of the audience at my first introductory lecture; yet twenty-eight years have passed since, as a student, I knew the Massachusetts Medical College. The staff of the College then consisted of six professors and the demonstrator of anatomy, and the graduating class numbered about twenty. The graduates of the last year were more in number than the whole school for that year, and the officers of instruction, including those of the Dental Department, have increased from seven to thirty-three. Of those who then filled the professorships, two still live; the original incumbents of the chairs of Materia Medica and Obstetrics, whose appointments bear date more than a half century ago. It is a pleasure to find them still with us, and interested as much as ever in the progress of medical science, and in the institution which is largely indebted to them for its prosperity.

In assuming the obstetric chair, which was established in the year 1815, I find that both of my predecessors are with us, and I can only hope that my efforts to instruct and please may be received with as much satisfaction as the vivid descriptions of the one, and the enthusiastic comments of the other. The ready pen of the elder has instructed and enlightened many of us in the true management of "Bed Cases," and the prompt action of the younger has given courage to many a young man. To the latter gentleman the Tremont Medical School owes its birth, and from that the summer school of Harvard University originated, by the stimulus of another organization whose days were less long in the land.

The preface of a book is generally the last portion written. Could the prefatory lecture be the last to deliver, it would be an easier task, inasmuch as it might give you a synopsis of all you had heard, and refresh your memory for an examination. But our valedictory generally comes from an outside party, who can know but little of the particular labor which we are interested in. To my lot has it fallen to give the introduction of one to the other, and you will not take it amiss, should it be a lecture of advice.

I welcome you to the study of an agreeable but arduous profession; full of pleasure, full of toil. It has its dark and its bright spots. It is progressive in its course, and by its influence upon the public, we believe that the average age of man at death is coming nearer to that which is called old age. You have come together to receive a medical education. Some of you are from colleges and high schools, where you have been subjected to certain laws, which doubtless were irksome, but necessary under surrounding circumstances. Every officer of instruc-

tion was also an officer of police, and every successful attempt to elude his vigilance was probably looked upon as a good joke, or a lucky hit. It is supposed that you entered those institutions by the wish of parents or guardians. We presume that you come here by your own choice, to study a profession for which you think yourselves fitted, and which you intend to make the business of life. The officers of instruction have nothing to do with police affairs, and expect to meet you as gentlemen and fellow-students, engaged in the same investigations.

This season an additional school begins its work in connection with the Medical Department and by invitation of its Dean I address also the students of the Dental School. All that is to be said is as applicable to one as to another.

I speak more particularly to those who are here for the first time. You have come to study medicine. Have you fixed upon any special branch of the profession which you intend to follow out? If so, I would advise you, that you will probably change your intentions several times before you acquire the wealth which you see flow into the hands of some successful specialist whom you admire, and which a vivid imagination shows will be surely your stream. Except quack specialists, the successful ones are they who were good general students. Study the whole profession, not a part of it; and time and opportunity and accident will show, twenty years hence, what branch you are best qualified for, or whether you can get a living by the practice of any. To be a successful surgeon, you need to study all that the physician needs to know. To be a successful physician, you want a surgeon's education. The best practitioners are very likely those who are most often in doubt, and feel their own ignorance; and the most faith-

ful has sometimes to bewail his error in diagnosis. After a femur has become dislocated by disease, it is too late for the physician to wish it had looked less like rheumatism of the knee. After the surgeon has struck his trocar into a fœtus, it is too late to think that it looked very like dropsy. It is too late to wish you had studied chemistry, after you have been called to a patient who has an acrid poison in his stomach. Yet similar accidents have happened to men who stood well with the profession, and were thought good students and faithful observers. The more reason why, as students, you should undertake the study of the whole of the science, or none of it. He who undertakes to learn all of medicine and surgery that he can, will naturally fall into the place for which he is best fitted, whether he become a distinguished physician, an eminent surgeon, a thorough dentist, or a cutter of corns.

Within the memory of students of my own age, there was a time when specialists were few. Every physician was supposed to have qualified himself for anything which came along. Into the hands of a few the business of the oculist had gradually fallen, and dentistry had become a special branch. But no physician in this community felt that he could not wipe a foreign body from the eye, nor extract a tooth for one of his friends, nor wash the hardened wax from a neighbor's ear. And it was natural that inborn or acquired dexterity, in any branch of practice, should, in time, bring the greater part of such work into the hands of those of more particular skill. But those who became the specialists, were educated in the whole science, as though they were to go into general practice.

Your duty as students is general observation and practical study. You may not have the taste nor courage to

perform an operation with the knife, but you have no right to be so ignorant of anatomy that you cannot find and compress the vessel which supplies a wounded part. You may not care to remove a cataract, but you have no right not to know how to turn over an eyelid and remove a cinder. You may not fancy the dabbling in crucibles and test tubes, but you have no right to make yourselves ridiculous, by writing for liquids to be taken in drops, when after mixing they will be solid; nor for powders which will run through the papers in which they are folded. You have no right to mistake an ulcerated cartilage for rheumatism, nor a dislocated shoulder for a bruise. You have no right to treat for facial neuralgia an abscess underneath a tooth, nor to say that a man who was picked up in the street with apoplexy is dead drunk, because he is in the station-house. Yet all these have happened over and over again; and unless you study the whole profession, the day is likely to come when the errors may be yours, and when you will wish for the information which you thought belonged exclusively to others.

Medicine is a science. It is based upon observation. He who is the most acute observer is the best practitioner. The collection of statistics will not make you acute observers. That is a useful part of the work, but by itself is of no value. Every sense must be cultivated, for the senses are not alike acute in all. One can tell by the eye, another by the touch, a third only by the tape, if the two sides of a chest expand alike. But he is the better observer who tries the three, and allows one to correct and confirm the others. He is the best observer who can use one method, when the comfort and convenience of the patient will not allow the others.

A physician of great experience, so called by the public,

is by no means the man to whom we of the profession fly for advice, when we are in doubt. *We appeal to the man of observation.* Oftentimes you will find that use and large practice do not purchase professional respect, for we soon find out that one man learns more from the faithful observation of one case of fever in a year, than his neighbor learns from fifty. One man has seen a case daily for weeks, without observing a sluggishness of the pupil, or a slight irregularity of the pulse, or a very moderate distortion of the tongue, which tell to his more observant consulting friend, that he would do well to test the comparative sensibility or mobility of the extremities, and suspect a lurking disease of the brain. One man is for dosing a bilious disorder, which a sallow skin indicated to him; while the observer sees that the complexion is of pearly-bluish whiteness, and the lips and tongue and gums are ill supplied with blood, and the veins of the hands have changed to a pinkish hue from anœmia. One is surprised that he cannot remove this headache by cathartics, when his brother who observes, astonishes both patient and physician by a stimulant, which carries it off. One blisters and leeches an apparently inflamed knee without success, and is reminded of hysteria only when the man of observation suggests the exercise of the part. The first is unsuccessfully treating a phthisical cough, when his brother surprises him by inquiries, the answers to which show that indigestion is the disease. Croup, which was the monster that X was combatting with emetics, and poultices, and steam, Y, whose ears and eyes are better educated, relieved at once by suggesting the use of a gum lancet. And the chances are that our non-observing friend will cut the gums afterwards in every case of croup, or give pepsin for consumption, or brandy and

water for the headache, or oblige some patient with an ulcerated cartilage to take up his bed and walk.

But the work of observation is a hard work. Some of you will be acute observers from the start, and some of you may be very dull; but the observing powers of the best may be improved, and the apparently dullest man of all may astonish his friends by the keenness of cultivated powers. Still it is only by labor, and properly directed labor, such as medical schools intend to supervise, that the end is to be accomplished. In the words of one whom I hoped to see among us to-day, and whom as a boy I listened to at Cambridge, "Difficulty, struggle, progress,—this is the law."

How is your observation to be cultivated? There is time enough for the great majority of you. Do not run the risk of being superficial, nor of ruining your own health by undertaking to crowd too much into one year's course. The dissecting room, the laboratory and Materia Medica, are enough for the first year, if you visit hospitals and endeavor to become familiar with the appearance of the sick, the anatomy of the living, and the physiognomy of disease. But to know the anatomy of the living, you must take the dissecting knife upon the dead. You can never learn the tongue of the sick unless you examine the tongue of the well. Your study of abnormal discharges will be of comparatively little value unless you examine those of health. It will be of slight consequence in your practice to know the origin and attachment of all the muscles which extend the back; but your observation will be of the greatest service, if you can tell what parts a knife will traverse, if thrust into the abdomen directly or obliquely, at a point four inches to the right or the left of the umbilicus; or how to stop by

compression or otherwise, the hemorrhage from a bullet through the centre of the hand; or the direction and effect of a sword between any two ribs, a few inches more or less from the spine.

The constant tendency of students is to theorize, and the more they advance in the profession, the stronger the tendency becomes. Battle theory with observation, and let your observations contend with each other. One observation proves as little in medicine as in any other science. We know but little of the different forces operating within our patients, and to lay down rules deduced from single cases is absurd. Age comes into the calculation, and so does the diet. The situation of this house had an effect upon this patient, so did his air-tight stove. The family surroundings influenced her insanity; so did a young man in the next village. This one had his feet frequently wet, which gave him his cough; his mother died of phthisis at his age. That one grew thin, and that one grew fat, as soon as they began to work in the mill; but Jane was in the midst of cotton dust, and Anna was handling greasy wool. Constant fever was in the finest house in town, while the next door was free from it; a change in the water-closet pipes made them equal. This patient began to recover as soon as he took wine; but he began with meat on the same day. This patient's dyspepsia troubled him till he began smoking, and that one's left him when he stopped the use of tobacco.

Your theory must follow the observation, and not your observation the theory. One case proves nothing. Ten cases prove nothing. All the cases for a year are but a feather in the scale. Years ago, men said that painting the borders of an erysipelatous patch with iodine would cut short the disease, because they had seen it stop at that point

after its use; but any man of large observation has seen it crawl over the line. That spot was not the disease, but only one manifestation of it. I once gave ten grains of compound cathartic pill to a patient who seemed about to have a violent dysentery, to give him a clearing out, preparatory to an opiate course, but he had no dejection for three days after. A few such cases might prove to many the astringent effect of aloes and calomel and the like, and their friends who knew them to be experienced men, would follow the track, though nineteen of their patients should die out of every twenty.

Have any of you established your belief in any system of medicine, and come here to get quasi certificates of qualification? You are quacks from birth, and would do as well to put up your door plates now, as to waste your time and money in three years of pretended study. You will be just as much quacks with degrees as without; and you can make more money as irregular than as regular practitioners.

We wish for students, those who intend to follow out medical science, and aid us in its advances as far as they can. For what any one believes we have no fault to find with him; but we do find fault with him sometimes for his manner of obtaining his belief, and still more, if he bends anything, however true, in a false direction, to establish his belief in others.

A man may honestly practice homœopathy, or eclecticism, or allopathy, if any one can tell what that is. He may be a knave or a fool in the practice of either. He may work industriously to establish the truth of anything he believes, shutting his eyes to all proof of any truth in an opposite direction, and he is simply a fool quack. But if he steps a little farther, and puts his be-

lief upon his sign, and endeavors to convert the public by professional preaching, he is a knave quack, with whom an honorable physician will have no intercourse. It is not a man's belief in one system or another, that makes him a regular or an irregular practitioner. There is almost as much difference of *belief* concerning methods of treatment among regular practitioners now present, as there was difference of *practice* between Hahnneman and Sangrado. Their arguments, however, are to each other, and not to the public, whose knowledge of medical science is equal to our knowledge of the science of gunnery.

The most contemptible of quacks is he who stands ready to sit on two stools; the man who tells his patient that one system, as he calls it, is good for children, and another is often required for adults; who doses the parent and big brother with senna and salts, and the child with sugar plums; who either has not the courage or honesty to say that he thinks the patient will get well without drugs, lest some one may be sent for who will give them and deprive him of fees; who pretends, in one house, that disease is only to be cured by medicines which produce the symptoms of it, and in another, by medicines which produce the opposite set of symptoms. Yet you will find such men in the profession, who do their teaching to patients, but never talk nor write to the profession. Some of these men associate with the regular physicians, and some of them read papers on homœopathy at homœopathic conventions.

Gentlemen, in the words of him whom I quoted before, "Strive to be a whole something."

Medical observation will show you that the medical world, as well as the other worlds, is filled with fashions. There is fashion in disease, and fashion in treatment, and

he is sometimes considered a bold, a rash, yes, an unscrupulous practitioner, who dares *not* to follow in the general train. The day has been, when each disease was supposed to be a tangible enemy, for the destruction of whom there was a particular weapon; and after learning his name, it only remained for the physician to select from his armory the proper material of offensive war, and pour it in with a sufficiently lavish hand. Heroic practice was the rule, and the weapons were the result of theory, and sometimes of imperfect observation. Indeed, at this day, there are those who follow the same style of treatment, and who would really feel guilty on leaving a patient without a dose. But change has long since begun, and within the last third of a century, medical men have tried to see how much can be done with the least drugging. In this the honest practitioner of homœopathy has unwittingly helped the observing physician, inasmuch as it was apparent that the small sugar globule supposed to be impregnated with an aura was often followed by relief, and he was led to let some patient get well without medication, who would otherwise have been dosed. And here let me say, that you should keep your observing powers awake, and not fail to make use of every circumstance which can be of the slightest use to your patient, whether it come from a regular physician, a pretending quack, or an amateur nurse.

Observation will show you that changes in the fashion of clothing will produce changes in the fashion of disease. Fashion makes and prevents sore throats and rheumatism. Gentlemen now present will remember, when the high pockets for the hands in outside winter garments, some twenty or more years ago, introduced the fashion of fractured olecranon, which would otherwise have been pre-

vented, as the low pockets, a winter or two ago, gave a fractured wrist for the fashion in those who fell.

You will observe that fashion arranges the hair, and settles the style of ear freezing. She decides the height of boot heels, and arranges the bumps upon the skull in those who slip. She decides upon the width of the sole at the toe, and fixes the number of corns; the width below the instep, and the consequent firmness or weakness of the ankle joint. She commands the extent of neck and waist to be uncovered, and the proper proportion of pleurisies and pneumonias to follow. When you find, by observation, any class of accident or disease prevailing with unwonted frequency, let your observation work out the cause, and, if possible, establish the fashion of prevention, which is always worth more than a cure.

Even here there is danger that you may let theory have the advance of observation, though you may have an observation at the start. Do not trust observations which are not recorded, and if you read your record of last week, you will frequently find some fact omitted which to-day you know, and which comes again to-morrow, and changes your whole plan of treatment for the future.

What is it to be bilious? Not a man in this room has probably any very distinct idea of the meaning of the term. Yet it has been the fashionable disease, and always will be with the quack pill maker. Before the days of written observations, it was the fashion with all. It was profitable to the doctor and the druggist. It was the day of blue pill and cathartics, of purging and puking, when as much medicine was poured into a child who had eaten too many buckwheat cakes, as an educated veterinary practitioner would give to-day to a sick horse.

It was theory and not observation, which gave us the

fashion of spinal irritation, the disease of every third woman in the hospital, when I began my studies. Ask what it meant. No one can tell you. Still later, and to take its place, came diseases of the womb, and as these have unfortunately become to some extent a class of diseases treated by specialists, we shall know less of them ten years hence, than if the specialist never existed; for many specialists see but one thing, and that is the one thing they are always working for. At the rate we are now going on, by the end of this generation, it will be a rarity to find a vagina of fourteen years which has not received its pessary, or a cervix uteri which has not been probed by some fashionable practitioner of medical masturbation.

In its turn came diphtheria; and every sore throat, whether it had a membranous exudation or simply a white sebaceous protrusion from its follicles, was diphtheritia in M's practice, though N's, with the majority of us, had seldom or never seen the disease. This was because M had not been in the habit of observing throats, until the medical journals and the daily newspapers talked about the ravages of the disease.

Not many years ago a similar, but less virulent fashion, accompanied with cough, was the clergyman's sore throat, bronchitis, as it was sometimes called, and the sponge probang was rammed into the æsophagus of him who coughed; and to-day the observing physician sees the granular fauces of many of the victims who patiently submitted to the canonical treatment.

Since the publication of Lallemand's book on spermatorrhœa, and the observation that very many insane men masturbate, the theory that masturbation is the very frequent cause of insanity has been the fashion, without ob-

serving whether it may not generally be a symptom rather than a cause. Some physicians are ready to allow that every nervous boy or man indulges in the vice, though very few of them ever saw the spermatozoa in the discharges on the shirt. The benevolent and the quack encourage the delusion, and by their lectures and books have taught masturbation to those who otherwise never would have thought of it; books which are read for the sexual excitement they produce; books which might well be replaced by Humphrey Clinker and Tom Jones, because the latter do not teach the unnatural act, and do not lead to the counting of wrinkles, and the examining of dark swellings below the eyes; do not lead to the fear of insanity, and thus produce it.

There are fashionable medicines. Keep your observation at work upon them. To omit the experiment with some drug, which a friend thinks he has found most useful, seems impossible; but beware, unless he has recorded observations to back his statements. Looking back from year to year, one finds a long list of certain cures, which he has tried and dropped, till near the close of a long and successful practice, a friend who formerly occupied the chair of Theory and Practice, said to me at a consultation, "Doctor, I have about come to the conclusion that in acute diseases, medicines are of comparatively little value; but in chronic cases, I think minute doses of bichloride of mercury are sometimes useful." The statement was a strange one, but it contained a marvelous amount of truth. Dr. Ware's observations were of value to all who knew him, for they were known to be faithful, and his statements were cautious, and we know he believed them.

You will try the new cures as they come up, and will

be astonished, that your older brothers do not believe you will see such results as some one's treatise convinces you must come. But if at the end of a quarter of a century's practice you obtain more than one new medicine upon which you can rely, and do not forget a hundred new ones which you followed the fashion in, it will be because the progress of the future will far exceed the progress of the past.

From mere fashions in medicine keep yourselves aloof. Keep your observing powers awake, and pick up every crumb of knowledge which falls in your way. Do not yield your faith to what is said to be true, but constantly doubt. One successful result proves nothing, and a hundred will not prove all. Let go all anxiety lest your patient should discharge you, because you do not believe in the course which the patient's friends may dictate. Whatsoever course your observation leads you to believe, follow out, but be sure your observation is correct; and if pretenders seem to succeed the most rapidly, you will find that they also succeed each other. The tide is constantly changing; and if those who leave you for the charlatan do not return to you, it is from shame. After they have been the rounds of quackery, the majority of them will fall into the hands of other regular practitioners, while their patients will go through the same course, and fall into yours.

See how the water fashions change. Those gentlemen are here, who remember that a drop of cold water was supposed to be certain death for the patient, whether used without or within. The day came when it was poured in without stint. Most of us can remember when at every furniture shop stood the everlasting cotton covered closet, which was also to be found in almost every bedroom, and into which every man who desired to preserve his health

was expected to walk every morning, and take the cold shower, on rising from a warm bed. He was hardly deemed fit for society who did not perform his daily devotions with cold water at the shrines of rheumatism, pneumonia and pericarditis. Some were doubtless benefitted by washing, and some who were not, escaped; but like the Spartan children, who lived through the exposure, it was because they were tough.

The fashion changed because it was so uncomfortable, and men kept clean comfortably, and the bills of mortality did not increase as the sale of the shower bath diminished.

The water fashion has returned, but in a new form. By many it is known that the Turkish process of parboiling and scraping off the epidermis, and sending you from a temperature of 120° to 32°, or 0°, is sure to cure disease and promote health. But there are those of us who are trying to gather courage to think that we have seen pernicious effects follow, and we do not choose to recommend for every one in this climate what may answer very well at Constantinople, especially as our Turks omit the one saving element of the service—the greasing after the bath, as a partial means of replacing the epidermis.

And mineral waters are in fashion, and Missisquoi and Gettysburg and Sheldon and Saratoga and Sharon vie with each other, till each of them cures in a year more cancers than the country can show, while hospital records will show you that the number which come under the knife of the operating surgeon does not diminish. As an observing physician reads the account of the symptoms and the progress of the cures, he recognizes the effects of nature's purely vegetable remedies, in which he has sometimes found iodine and mercurials, and in place of cancer he reads—Pox.

Thirty years ago they were rash physicians who had not joined in the crusade against alcohol. It had been used by them, but time and reflection, not recorded observation, had satisfied them that it never aided in cure, but was the parent of almost every disease. The document still exists, upon which honored names attest the truth of this statement. But fusel oil was supposed by some one to prevent phthisis in Copenhagen, or somewhere else, and the same doctor who knew that alcohol caused phthisis, has adopted the fashion of putting the whiskey bottle on every consumptive's table. The observations are yet to be made, which will prove to the profession that alcohol is sometimes the cause, and sometimes the cure of phthisis, and he who investigates, if he wishes to have his word of permanent authority, has got some other table to arrange than that which shows the amount of whiskey taken, and the hours of taking it. It must show the other articles of diet, the nature of the soil, the surroundings of the habitation, the chimneys, the cast iron stoves, and forty other things which perhaps none of us have yet the remotest dream of.

And what has become of the lancet? The time has been when a dozen lancets a year was only a fair allowance in a large practice. I believe it is true that there are twenty physicians to-day who never bled a patient for every patient who is bled.

In one institution in this city granular disease of the conjunctiva was for years more common than healthy eyes. There were two collyria used, a weak and a strong. The one contained sixty, the other one hundred and twenty grains of nitrate of silver to the ounce of water. They were applied faithfully and in good faith. It was the fashion introduced by some one's treatise; but the

observation of others showed that they made more disease than they cured, and the more moderate treatment of this day introduced here by one of our friends, was followed by the relief of nineteen-twentieths of the patients in a few weeks.

At that time it was believed that mercurials alone could prevent the loss of sight by iritis; but in later days we have seen the disease melt away without them as the fashion has changed, and observation has shown that theories which were in vogue were false.

Mercurials were known to increase the secretion of bile, and blue pill and calomel were, and still are with some, as common as their daily bread. Dr. Bennett of Edinburgh, however, chairman of a committee of the British Association, has lately made a report of observations upon the subject, a report made with great care of experiments upon dogs, which shows satisfactorily, that in that animal, at least, the effect of mercurials is to diminish the amount of bile secreted. Upon this subject you will undoubtedly hear more before this winter's term is completed. Observation has yet to show if podophylin or leptandrin can take the vacated chair, or whether anything can do it, or whether it be of much use to stir up the sluggish dignity of an unwilling liver.

Antimony, *ad nauseam*, was the only article which could relieve pneumonia, but we see patients recover now, who get well of pneumonia with no medicine, except an opiate to relieve their pain, and even without that.

If so much turns out as represented, you may ask, what are we to study medicine for? Why to continue the improvements in practice. To do your part in preventing sickness, in alleviating suffering, in extending the term of life. Medicines have their uses, as well as their

abuses. You are to learn how to give them, and when to give them. More, you are to learn when not to give them. The inert pill or the perfumed water, as well as the active cathartic and the opiate, may sometimes be of service to your patient, to prevent his taking medicine which will aggravate his disease. That is medical treatment sometimes of the most useful kind; for many men will take injuriously active medicine if you do not give that which is innocently inactive. It is for you to study your patient, and learn whether he will bear to be told the whole truth, or silence best; whether he needs rest, or change of food, or change of habitation, or the administration of drugs. It is for you to find out, and it may take years to find out, whether it will be best to let blood; for the day may come, if you do not learn how, when some unfortunate will die of suffocation at the beginning of pneumonia, when the loss of a few ounces of blood would save his life. It is for you to find out when one's rectum is impacted with fœces, of if his small intestine is strangulated, and whether the cathartic, the syringe or the knife, will relieve him. It is for you to find out if it is a foreign body in the æsophagus or ædema of the glottis that obstructs his respiration, and to decide between the probang and the bistoury. It is for you to find out whether he has spermatorrhœa or a deposit of oxalate of lime in his urine, and whether he is to be relieved by medicine or surgery, by hygiene or chemistry, by a moral lecture, or the last funny book.

Make your study by observation. Following the rules of one writer, studying by the bedsides of one practitioner, will only be enough to narrow your ideas, and cramp your progress. The sick recover with very different methods of treatment. You will learn more thoroughly

by confining your observations to a single class of cases at a time, and by following the clinical visits of different physicians at the same time. You will obtain more useful knowledge by seeing the minor operations in surgery and the applications of splints, than by crowding the amphitheatre to see the abdominal aorta tied. You will serve your patient better, if you can learn how to lift a lame leg, or compress the femoral artery, to reduce a hernia or get a grain of sand out of the eye, or teach some nurse how to make a palatable gruel or a comfortable bed, than you will by naming accurately the ligaments of the cervical vertebræ, or counting and demonstrating the number of layers of fascia over a forty years' inguinal hernia. The little things are to be learned at the beginning, or they never will be learned. In the long days and evenings after the degree is attained, you will find time enough for the rest.

You will do better to keep full records of a certain number of cases, which you may see, than to write notes of the lectures you attend. By that course you will accumulate facts which in after years can be compared with facts in your practice, and which, if properly studied, will be of infinitely more service than records of opinions. You will learn to observe the surroundings of patients. You will learn hygienic laws. You will learn how men die in spite of drugs, and get well in spite of drugs. If I do not greatly mistake, you will learn that some may have died who might have lived, if something had not escaped your early observation ; and that some lived who would have died, if as students you had not observed some new fact to which your predecessors were blind.

$8 \times 5 = 40 \times 3 = 120$

$12,000$